REMARKS

Claim Rejections 35 USC § 103

Claims 1-16 are rejected under U.S.C. 103(a) as being unpatentable over Smee et al. U.S. patent No 7,082,174B1 in view of Zhu et al., U.S. patent No. 6,973,144 B1. .

In rejecting claims 1 and 16, the Examiner refers to Figure 4a and suggests that the first and second filters of claim 1 and 16 may be constituted by elements 410a and 410b.

According to claim 1, the first space time filter has filter coefficients initialized by estimation over just training data in a received burst and the second space time filter has filter coefficients initialized by estimation over the received burst. Thus, the first and second filters have filter coefficients that are initialized by estimating over respective different parts of the received signal. The first filter uses the training data only and the second filter estimates over the received burst, which will include training and non-training data. In Smee et al. the signals received from respective antenna elements are applied to pre-processors 210a, 210b ...210k to filters 410a, 410b... 410k (Figure 4A), the coefficients of the filters being adjusted by coefficient adjustment element 420a. According to the passage at Col. 8, lines 54 to 67, the filters are each treated in a similar manner. There is no use of training data only for initializing coefficients of one filter and a burst for those of another filter, as required by claims 1 and 16. Thus, Applicants submit that the first and second filters of claim 1 and claim 16 cannot be said to be constituted by elements 410a and 410b, say, of Figure 4A, contrary to the Examiner's interpretation of this reference. Furthermore, there is no suggestion that Smee et al could be modified so that coefficients for one filter are initialized using training data only whereas those of another uses the received burst.

As the Examiner acknowledges, Smee et al also does not teach a selector as required by claim 1 or claim 16.

Zhu et al includes a switching circuit that uses an error signal from a decoder to determine from which filter to accept an output. However, the filters each seem to operate using training data, for example, see Col. 6, lines 27-55 and Figure 5 and the mention of

reference pulses. Thus there is no selection of first and second outputs, where those outputs are as specified in claims 1 and 16. Accordingly, it is submitted that Zhu et al does not teach a selector as claimed in claim 1 or claim 16.

If, for the sake of argument, it is considered that Zhu et al does disclose a selector as claimed in claim 1 or claim 16, there is no teaching in Smee et al or Zhu et al, or any combination of these references, of a first space time filter having filter coefficients initialized by estimation over just training data in a received burst and a second space time filter having filter coefficients initialized by estimation over the received burst.

In view of the foregoing, Applicants submit that claims 1 and 16 are allowable. The remaining claims are dependent either directly or indirectly on the allowable independent claims, and for this reason at least, are also allowable.

Respectfully submitted,

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